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# Measurement issues of shared decision making in mental health: Challenges and Opportunities

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# **Title:** Measurement issues of shared decision making in mental health: Challenges and Opportunities

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Abstract

**Purpose**

Shared decision making (SDM) is a model of health care in which patients are involved in the decision making process about their treatment, considering their preferences and concerns in a deliberative process with the health care provider. Many existing instruments assess the antecedents, process, or the outcomes of SDM. The aim of this article is to identify the SDM-related measures applied in a mental health context.

**Design/methodology/approach**

We performed a systematic review in several electronic databases from 1990 to October 2016. Studies that assessed quantitatively one or more constructs related to SDM (antecedents, process, outcomes) in the field of mental health were included.

**Findings**

We included 87 studies that applied 48 measures on distinct SDM constructs. A large majority of them have been developed in the field of physical diseases and adapted or directly applied in the mental health context. The most evaluated construct is the SDM process in consultation, mainly by patients' self-report but also by external observer measures, followed by the patients' preferences for involvement in decision making. The most applied instrument was the *Autonomy Preference Index* (API), followed by the *Observing Patient Involvement in Decision Making* (OPTION) and the *Control Preferences Scale* (CPS). The psychometric validation in mental health samples of the instruments identified is very scarce.

**Research limitations/implications**

The bibliographic search is comprehensive, but could not be completely exhaustive. Effort should be invested in the development of new SDM for mental health tools that will There is a need of psychometrically validated instruments, specifically developed in the mental health setting, which reflect the complexity and specific features of mental health care.

**Originality/value**

We highlight several limitations and challenges for the measurement of SDM in mental health care.

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## Introduction

Health professionals are increasingly being encouraged to adopt a collaborative and deliberative approach, Shared Decision Making (SDM) to enhance patient-centered care (Elwyn et al., 2012). In this sense, policy documents and clinical practice guidelines advocate for health professionals to involve patients in decision-making processes and allow service users' preferences, along with the scientific evidence, to guide decisions where possible (van der Weijden et al., 2013; NICE, 2016). Patient decision aids, risk calculators and other tools can help to translate information from evidence and incorporate the goals and subjective experiences of patients in ways that are accessible in routine practice (Van Der Weijden et al., 2012).

The SDM approach aims to change the asymmetry between patients and their health professionals regarding decisional power and decision-relevant information, as well as to increase patient autonomy and empower service users in decisions -about treatment (Charles, Gafni and Whelan, 1999). However, while evidence suggesting its benefits is growing (Stacey et al., 2014), its application in the area of mental health is still in its infancy (Beitinger, Kissling and Hamann, 2014). There is a consensus about the importance of patient-centered care when dealing with mental health problems. In this regard, the concept of recovery ~~(Duncan, Best and Hagen, 2010)~~ (Duncan, Best and Hagen, 2010) goes beyond the simple "cure" of symptoms, emphizesing the inclusion and continue participation within the community of people with mental health disorders. Recovery implies to gain or retain control and responsibility over one's own life and to be able to integrate in the community, overcoming the impact of symptoms although these have not completely remitted. Interventions like assertive community treatment, supported employement or family interventions promote this communit~~ar~~y integration of people with mental illnesses, and in this sense SDM between services users and proffesionals seems an ineludible and core component of the process of

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patients' involvement that could lead to recovery ~~(Storm and Edwards, 2013).~~(Storm and Edwards, 2013).

Several barriers in adapting SDM to mental health exist have been discussed in this special issue, including concerns regarding the patient's decision-making capacity due to ~~psychiatric~~ mental health symptoms, and lack of interventions and methods for measuring and assessing SDM in mental health (See Kaminskiy, Senner, and Hamann; and Zisman-Ilani et al., in this issue).

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Measuring and assessing SDM is important to understand the effect of interventions and to explore relationships between different constructs (Scholl et al., 2011). Different constructs can be measured to provide insight into the decision making-process: *prerequisite skills for SDM* (e.g., decision self-efficacy, health literacy of patients, communication skills), *decision-making elements* (e.g., involvement and satisfaction in clinical decision making, type of topics covered in the consultation, the amount and type of deliberation on the part of patients and health professionals), and *decision outcomes* (e.g., objective knowledge, concordance between values and choices, decisional conflict, adherence and utilization of the choice made) (Sepucha & Mulley 2009; Barr, Scholl, et al. 2016). Regarding the perspective assessed, SDM measures can be divided into three type: observer measures, professional-report and patient-report tools (Scholl et al., 2011). *Observer measures of SDM* have been developed to assess observable aspects of SDM in clinical settings, typically assessed via audio or video recordings of clinical encounters, which then are coded based on a previously established system (Elwyn and Blaine, 2016); the *perception of healthcare professionals on SDM* (Chong, Aslani and Chen, 2013), and the *patient-reported outcomes related to SDM* (Barr, Scholl, et al. 2016; Barr & Elwyn 2016) are tools that assess the perspective from health professionals or service users about the extent to which patients have been involved in the decision-making process about

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their care. Assessments may measure a single consultation or to the whole process of care. Further insight into SDM can be gained by the triangulation of methods (e.g. observer, health professional, service users) and by using a dyadic data analysis approach (Kenny et al., 2010).

Despite the importance of SDM for delivering patient-centered care in mental health, there is no consensus on how to measure its process and outcomes (Perestelo-Perez et al., 2011). With the growing interest among policymakers, researchers, clinicians, and patients in using SDM in mental health routine care, there is a need for reliable measurement tools that will response to the unique setting of mental health (Morant, Kaminskiy and Ramon, 2015). The purpose of the present article is the review of measures of SDM-related constructs for mental health settings, describing their psychometric properties evaluated in the ~~psychiatric~~mental health samples identified (the comparison of the psychometric quality of the instruments falls beyond the scope of this review).

~~review existing literature for measurements of SDM for mental health settings and provide a summary of tools that can serve in the future for research and clinical purposes of SDM in mental health.~~

## Method

~~*Types of measurement of SDM*~~

~~SDM measures can be divided into three type: observer measures, professional report and patient report tools (Scholl et al. 2011). *Observer measures of SDM* have been developed to assess observable aspects of SDM in clinical settings, typically assessed via audio or video recordings of clinical encounters, which then are coded based on a previously established system (Elwyn & Blaine 2016); the *perception of healthcare professionals on SDM* (Chong et al. 2013), and the *patient reported outcomes related to SDM* (Barr, Scholl, et al. 2016; Barr &~~

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~~Elwyn 2016) are tools that assess the perspective from health professionals or service users about the extent to which patients have been involved in the decision making process about their care. Assessments may measure a single consultation or to the whole process of care. Further insight into SDM can be gained by the triangulation of methods (e.g. observer, health professional, service users) and by using a dyadic data analysis approach (Kenny et al. 2010).~~

*Review of key measurement instruments of SDM in mental health*

~~There are many measures to assess the different aspects of SDM (for decision antecedents, decision making process, and decision outcomes). Therefore, l~~In order to identify existing instruments, a ~~–~~systematic review was performed in the electronic databases Medline, PsycINFO, Scopus, Web of Science, from January 1990 to October 2016 using a number of Medical Subject Headings (MeSH) and keywords in three domains: i) shared decision making, ii) mental health, and iii) measures (see Appendix A). A secondary search of the reference sections of included papers and identified review articles was also conducted.

The study selection process consisted of several successive steps. First, the results obtained from the databases were grouped into a single file. Duplicate records for a single study were eliminated before starting the selection process. The study selection form was tested on ten randomly drawn studies in order to ascertain selection criterion relevance and discrimination. Then the title and abstracts were independently selected by two members of the review team (AR and YA)[1], and any discrepancies were resolve by discussion or a third reviewer (LP)[2]. During the third phase, the selected abstracts were examined by AR and YA using the same process. Finally, examination of the full articles by AR and LP enabled a decision of whether to include

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each article in the systematic review to be made. All references were managed using Reference Manager.

The following inclusion criteria were applied: ~~Experimental~~ experimental or observational studies were included if: 1) they recruited patients receiving mental health treatment or they were diagnosed with a ~~psychiatric~~ mental health disorder by a mental health professional; 2) quantitatively assessed at least one of the three aspects of SDM: decision antecedents, decision-making process and decision outcomes, from the perspective of the patient, the healthcare professional or an external observer; 3) were published in English or Spanish. The decision of whether an identified construct fitted in this theoretical framework was discussed by the authors, independently of whether the study's stated aim was the measurement of SDM or how the construct was labeled.

Studies were excluded if: the decision was not related mental health care, or instruments applied were intended to measure the therapeutic alliance, or affective/empathic aspects of the patient-professional interaction. Studies assessing empowerment also were excluded, since this concept comprises indistinctly several dispositions and skills related to the SDM process and outcome, and currently there is no consensus about its operationalization (Barr et al., 2015; Bravo et al., 2015). We also excluded studies that applied preference elicitation techniques (e.g., discrete choice experiments, conjoint analysis) to assess treatment preferences, or studies where the SDM construct was assessed qualitatively (by means of conversation analysis, thematic analysis or other qualitative techniques).

## Results

The electronic search yielded 1212 references after eliminating duplicates~~.~~ and~~–~~ other 14 references were identified by manual search. A total of ~~238~~ 242 articles were selected by

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title/abstract, and after full-text review ~~73~~ 87 references were finally included~~. Other 140 references were identified by manual search~~ (Figure 1). The most common cause of exclusion was that the instruments used did not assessed the SDM constructs targeted in this review (n=102), followed by not including at least a differentiated subsample of mental health patients. A majority of the included studies recruited ~~samples of~~ patients with different ~~psychiatric mental health~~psychiatric diagnoses, followed by studies that included patients with depression only (n=19). Few studies exclusively focused on other disorders such like schizophrenia (n=6), attention deficit and hyperactivity disorder (n=5), bipolar disorder (n=2), autism (n=2), dementia (n=2) or substance abuse (n=1). Only 10 studies focused on children, adolescents or their parents. Other two studies evaluated the desire of patients regarding their families' participation in treatment decisions.

A total of 48 instruments were identified (see Table 1). From these, only 11 were originally developed in a mental health setting (*Clinical Decision Making Style-CDMS, Decisional Balance for Patient Choice in Substance Abuse Treatment, Family Involvement in Treatment scale-FIT, Preferences and Satisfaction Questionnaire-PSQ, Service Satisfaction Questionnaire,* and six measures assessing ~~of objective~~ knowledge outcomes). The remaining measures were developed in physical health care settings, and subsequently adapted for use in a mental health context, when necessary (e.g. through minor change to item wording). Five of these were constructed with specific SDM items selected from previous surveys, which assess patients' perceptions of quality of health care, not only SDM (*Consumer Quality Index-CQI, Consumer Assessment of Healthcare Providers and Systems-CAHPS, Experience of Service Questionnaire-ESQ, National Survey of Children with Special Health Care Needs- NS-CSHCN, Patient Assessment of Chronic Illness Care-PACIC*).

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*SDM antecedents*

We identified 14 instruments that assess antecedents of the SDM process (the patient's preferences for involvement in most cases, but also decisional self-efficacy, desire for family involvement or decision emotional control). The most commonly used instrument for SDM antecedents in mental health is the *Autonomy Preference Index* (API), applied in 16 studies, followed by the *Control Preferences Scale* (CPS, 8 studies). The remaining scales (n=12) were applied to fewer studies (between 1 and 4). Only one out of the 14 measures (LATCon II) were applied to assess professionals' attitudes (De las Cuevas et al., 2012), whereas other one was designed for both patients and professionals (the *Clinical Decision Making Style*, CDMS). This latter measure was developed and validated with mental health patients from six European countries (Puschner et al., 2013).

Apart from internal consistency, which showed good values in most cases, the reported results on the psychometric properties of instruments are scarce. Three studies offered confirmatory factor validity: two for the API (Simon et al. 2010; Bonfils et al. 2015), and one for the *Decisional Balance for Patient Choice in Substance Abuse Treatment* (Finnell and Lee, 2011), whereas De las Cuevas et al. (De las Cuevas et al., 2011, 2012) performed exploratory component analyses on two versions of the LATCon questionnaire (in patients and psychiatrists, respectively). Puschner et al. (2013) assessed stability over one year of the CDMS, as well as its concurrent validity with stage of recovery. Finally, regarding predictive validity, Mahone (2008) did not find a significant association between the CPS and self-reported medication adherence, whereas O'Brien et al. (2013) observed that parents' self-efficacy significantly predicted self-reported adherence of their children/adolescents with serious emotional disturbance.

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*SDM process*

Twenty-two instruments were identified that assess the SDM process. Three are based on external observers' evaluations (*Informed Decision Making Scale-IDMS, Measure of Patient-Centered Communication-MPCC, Observing Patient Involvement in Decision Making*-OPTION), four were applied to assess the professional's self-report (*Clinical Decision Making Involvement and Satisfaction*-CDIS, *Dyadic OPTION, Physician Participatory Decision-Making Style, SDM-Q-9-Doc*), and the remaining focused on patients' views.

The OPTION scale was the most used instrument in studies assessing SDM in mental health (8 studies). It showed acceptable or good inter-rater reliability in the five studies that reported data; besides this, only an exploratory factor analysis has been reported (Goossensen, Zijlstra and Koopmanschap, 2007). The remaining measures were applied in few studies each; most of these reported measures of internal consistency, as well as construct/convergent validity (by means of associations with other scales or individual items). Slade et al. (2014) published the development and validation of the CDIS in mental health patients, in the same six European countries as the CDMS previously mentioned. Rosenberg et al. (2016) reported two-weeks temporal stability (reliability) and convergent validity (construct validity) of the dyadic OPTION and the 3-item scale CollaboRATE. The *SDM-Q-9* (patient and professional versions) has been validated in mental health settings in Germany, Netherlands, and Spain (Kriston et al. 2010; Kriston et al. 2012; Scholl, Kriston, Dirmaier & Harter 2012; De las Cuevas et al. 2013; Rodenburg-Vandenbussche et al. 2015), and ~~in~~ more recently, in ~~recently a version for the psychiatric~~mental health settings in Israel and the US ~~has been published~~ (Alvarez et al. 2016; Zisman-Ilani et al. 201~~6~~7~~6~~).

Predictive validity was assessed in eight studies. Mahone (2008) obtained non-significant results on the association between perceived involvement (by means of the CPS) and self-

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reported medication adherence, whereas Loh, Leonhart et al. (2007) found a significant positive relationship (by the Patient Participation Scale from Man-Son-Hing (MSH-scale)). Tambuyzer & Van Audenhove (2015), Golnik, Maccabee-Ryaboy et al. (2012) and Swanson et al. (2007) observed that perceived SDM significantly predicted patients' (or parents') satisfaction with care. In Bowersox et al. (2013), the SDM scale used ("care information") significantly predicted post-hospitalization attendance at mental health appointments. Edbrooke-Childs et al. (2016) found that involvement in SDM was significantly associated with lesser subsequent parent-reported psychosocial difficulties of their children. Finally, Butler, Elkins, et al. (2015) observed a significant concurrent association between parents' perceptions of SDM and their perceptions of their childrens' (lesser) impairment in school attendance and participation in extracurricular activities, receipt of all needed mental health care and lower illness severity.

*SDM outcomes*

The outcomes of the decisional process were assessed in 10 studies. Six studies assessed increased knowledge of the disease and treatments options, using measures specifically developed for the aim of each study. The *Decisional Conflict Scale* (DCS) was used in 5 studies. The other instruments identified were the *Combined Outcome Measure for Risk Communication and Treatment Decision-Making Effectiveness* (COMRADE), the *Satisfaction with Information about Medicines Scale* (SIMS), the *Satisfaction with Decision Scale* (SWDS), the SURE questionnaire, and the *Decision Regret Scale* (DRS).

The report of psychometric properties is very limited. Only two out of five studies report internal consistency of the DCS, and one explored its construct validity comparing the scores of patients whishing to continue neuroleptic medication to those who were unsure (Bunn et al.,

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1997). Rosenberg et al. (2016) offered test-retest and convergent validity data for the SURE questionnaire.

*Other assessments of SDM constructs*

Twelve other studies were identified that had not developed a psychometric scale, but instead used and analyzed individual items only (see Table 2). Perception of involvement from the patient's perspective was the most frequently assessed construct in this category.

Discussion

Results of the systematic review show that the number of studies assessing some aspect of SDM in a mental health setting has increased in recent years; 52 out of 87 studies (60%) were published in the last 5 years and from these, a wide variety of measures have been employed. The most used instruments are the *Autonomy Preference Index* (API) and the *Control Preferences Scale* (CPS) to assess patients' preference for involvement, and the OPTION scale for assessing SDM in consultation, a scale based on external observers' ratings. The most common construct evaluated is the patient's perception of involvement/SDM, whereas variables such as decision process outcomes (e.g., knowledge of treatment options; congruence between values and choices) or professionals' attitudes to SDM are underrepresented in existing measures. Most instruments identified were originally developed in the field of physical health care and then minimally adapted to the mental health setting (e.g., changes in wording). Exceptions are the CDMS (Puschner et al., 2013), the *Decisional Balance for Patient Choice in Substance Abuse Treatment* (Finnell and Lee, 2011), the CDIS (Slade et al., 2014), and the *Preferences and Satisfaction Questionnaire* (Perreault et al., 2005). The inclusion of ~~psychiatric patients~~mental health service users and providers in the initial development of the instruments is important to ensure that all the relevant facets of mental health care are covered.

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The report of the psychometric properties of the scales in the mental health samples is limited. Internal consistency is good in most cases, but very few studies assessed the scales' factor structure and test-retest reliability. Data on convergent validity with other scales or individual items are offered in several studies, but there is no gold standard of SDM and therefore it is difficult to establish construct validity. Related to this, research is needed on the comparison of patients', professionals' and objective assessments, which have shown poor correlation in previous studies (Kasper et al. 2011; Kasper et al. 2012; Scholl, Kriston, Dirmaier & Harter 2012~~; Kasper et al. 2012; Kasper et al. 2011~~). Some authors have tried to develop dyadic measures, instruments with the same underlying structure for patients and professionals that enable a direct comparison of both perspectives (Melbourne et al. 2011; Kasper et al. 2012; ~~Kasper et al. 2011;~~ Kriston et al. 2012). It is also necessary more research on the predictive performance of measures of SDM on behavioral (adherence, self-management), and health outcomes (symptoms, health-related quality of life). With these limitations in mind, among the identified instruments we considered that the API, the CPS, and the CDMS are to date the most appropriate measures of patients' (and professionals in the case of the CDMS) preferences for involvement in mental health care, whereas the CDIS, the SDM-Q-9, the OPTION, and the dyadic self-report OPTION are good alternatives for assessing patients' or observer's perceptions of SDM process. In addition, brief instruments such like the CollaboRATE or the SURE could be usefull in practical settings where short measures are required.

As commented in the introduction, the recovery model proposes the~~a~~ ~~communitary~~ integration within the community of people with mental health disorders, overcoming the impact of symptoms and achieving an increased responsibility and involvement in the decisions about their own life. In this regard, one of the most important challenges for future SDM research is to capture the complexity of decision making processes in mental health care

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settings. Decisions occur over multiple time points, involve chronic and ongoing challenges and often a significant work impairment and social stigma are present. In this context, interventions should include decisions not only about pharmacological or psychological treatment, but also about psychosocial issues like work, lifestyle, housing, legal issues, or social and leisure activities. None of the included studies focused on these aspects. Furthermore, the impact that mental health problems have on distinct life areas also highlight the importance of patients' social support, and in this sense the involvement of caregivers, family, or parents of young patients in the process of care and decision making seems crucial to increases the quality of services and maximize clinical improvement and quality of life. Some research is emerging which explores the inclusion of carer/guardians for young people (Golnik, Scal, et al. 2012; Maccabee-Ryaboy, et al. 2012; Butler, Elkins, et al. 2015; Ahmed et al. 2016; Golnik, Lipstein et al. 2016), but only two of the included studies assessed adult patients'~~(Cohen et al. 2013)(Perreault et al. 2005)~~ preferences for family involvement (Perreault et al., 2005; Cohen et al., 2013), and only the latter assessed relatives' opinion and experience. Research must therefore include carer and relative's views and experiences, and the way that these views are aligned with those of patients and mental health professionals (Roberts and Kim, 2015). The triangulation of these three perspectives will enable the detection of potential discrepancies in perceptions, preferences and intentions regarding treatment that could interfere negatively the process of care.

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None of the studies included assessed decision-making in multiple successive timepoints, regarding the same or different decisions. The chronic nature of many of mental health problems is often associated with long term prescription of of psychiatric medications, which may lead to impairing and serious physical adverse effects. Therefore, it is necessary a continuous monitoring of treatment outcomes, and many times successive decisions must be taken regarding switching, augmenting or discontinuing medication. The active participation of

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the patients in these decisions and an effective communication with the healthcare professional will increase the likelihood of achieving an optimal adjustment of pharmacological treatment. Measures of SDM should incorporate this temporal dimension taking into account the stability of users' preferences for involvement, their perceptions of the continuity of care, and the influence on these aspects of previous treatments and the evolution of clinical symptoms.

Finally, from an organizational perspective, although there is no universally agreed measure of SDM, there are some proposed solutions at different levels (micro, meso or macro level) to overcome key challenges to measure SDM (Barr, Scholl, et al. 2016). In particular, it would be useful for organizations: to involve patients and healthcare professionals in designing, developing and testing measures; to build strategies to include patient-reported outcomes in organizational registries (e.g., electronic medical records); to set up automated analysis methods to provide rapid feedback and methods of monitoring SDM in clinical encounters (to service users, mental health professionals, multidisciplinary teams care, organizations and health care systems); to set aside staff time to measure and monitor key outcomes; and finally, to promote tools as a component of a continuous monitoring set of routines, and build the tools into balanced scorecard when the value of measuring may not be recognized (Barr et al., 2015; Metz et al., 2015).

This article offers an extensive review of instruments used to assess SDM-related constructs. However, given the variability of terms used to refer to these constructs (e.g., perceived involvement, decisional role, desire for participation, decisional control, etc) it is possible that the search was not completely exhaustive. While a detailed comparison of the psychometric properties of the instruments identified was beyond the scope of the review, we have,

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nonetheless, tried to describe the extent of the psychometric validation performed on these measures.

Conclusions

In conclusion, SDM may be particularly relevant in mental health care, where increasing treatment-related empowerment and reducing use of coercion have been identified by patients as outcomes of intrinsic value (Stovell et al., 2016). However, there is little or no consensus about the core set of measures and constructs for SDM in mental health, and the evidence available on the performance of published instruments is variable (Scholl et al. 2011; Metz et al. 2015; Bouniols et al. 2016). In this sense, theory development on a set of core constructs to be measured is paramount. Furthermore, the International Patient Decision Aids Standards Collaboration, a world-wide group of researchers, practicioners, and stakeholders who are interested in the design and use of patient decision aids, has acknowledged the importance of measuring the involvement of patients in the decision making process and decision quality to assess the effect of interventions to facilitate SDM in mental health care, yet far more rigorous and systematic methods are needed to make this a reality.

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The total 48 instruments were identified (see Table 1). From these, only ten were originally developed in a mental health setting (*Clinical Decision Making Style, Decisional Balance for Patient Choice in Substance Abuse Treatment, Family Involvement in Treatment scale, Preferences and Satisfaction Questionnaire, SDM-Q-9-Psy, Service Satisfaction Questionnaire,* and four measures of objective knowledge). The remaining measures were developed in physical health care settings, and subsequently adapted for use in a mental health context, when necessary (e.g. through minor change to item wording). Among the latter, in five cases the scales were constructed with specific SDM items selected from previous surveys, which assess patients' perceptions of quality of health care, not only SDM (*Consumer Quality Index, Consumer Assessment of Healthcare Providers and Systems, Experience of Service Questionnaire, National Survey of Children with Special Health Care Needs, Patient Assessment of Chronic Illness Care*).

*SDM antecedents*

We identified 14 instruments that assess antecedents of the SDM process (the patient's preferences to be involved in the decision in most cases, but also decisional self efficacy, desire for family involvement or decision emotional control). The most commonly used instrument for SDM in mental health is the *Autonomy Preference Index* (API), applied in 14 studies, followed by the Control Preferences Scale (CPS, 7 studies). The remaining scales (n=12) were applied to fewer studies of SDM in mental health (between 1 and 4 studies). Only two out of the 14 measures were developed to assess professionals' attitudes, whereas other one was designed for both patients and professionals (the *Clinical Decision Making Style*, CDMS).

*SDM process*

Twenty-four instruments were identified that assess the SDM process. From this, three (*Informed Decision Making Scale, Measure of Patient-Centered Communication, Observing*

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*Patient Involvement in Decision Making'*) are based on external observers' evaluations, and four assess the professional's perspective (*Clinical Decision Making Involvement and Satisfaction, Dyadic OPTION, Physician Participatory Decision-Making Style, SDM-Q-Doc*), whereas the remaining were focused on patients' views. The OPTION scale was the most applied instrument in studies assessing SDM in mental health (8 studies).

*SDM outcomes*

The outcomes of the decisional process were assessed in 13 studies of SDM in mental health. The *Decisional Conflict Scale* (DCS) was the most applied measure (5 studies). The other instruments identified were the *Combined Outcome Measure for Risk Communication and Treatment Decision-Making Effectiveness* (COMRADE), the *Satisfaction with Information about Medicines Scale* (SIMS), the *Satisfaction with Decision Scale* (SWDS), the SURE questionnaire, and the *Decision Regret Scale* (DRS). Only four studies assessed objective knowledge of the disease and treatments options, using measures specifically developed for the aim of each study.

Twelve other studies were identified that did not used the complete or standardized version of a developed scale, but instead used individual items only (see table 2). Perception of involvement from the patient's perspective was the most frequently assessed construct.

Discussion

As the results of the systematic review show that the number of studies assessing some aspects of SDM in a mental health setting has increased in recent years; 61 out of 83 studies (74%) were published in the last 5 years and from these, a wide variety of measures have been employed. Given the heterogeneity of measures there are still several limitations and challenges for future research:

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From a methodological perspective, most instruments identified were originally developed in the field of physical health care and then adapted to the mental health setting. As such, there is a need to develop specific SDM measures for mental health that will enable us the specificities and complexities of decision-making in mental health, as oppose to relying on adapting existing tools. In addition, the psychometric validation of the existing measures is often limited, restricted in most cases to internal consistency analysis, and to a lesser extent, factorial validity.

In this respect, a large proportion of studies obtained acceptable values of internal consistency (Cronbach's $\alpha \geq 0.70$), although for the most applied measure, the API, some studies found unsatisfactory values (Hamann et al. 2011; Puschner et al. 2013; Lukens et al. 2013). There is no gold standard of SDM, and therefore it is difficult to assess construct validity. Furthermore, the high number of different instruments developed to assess the same or similar constructs (e.g., patients' perceived involvement in decisions) makes difficult to compare the results of the different studies.

On the other hand, other variables such as decision process outcomes (e.g. treatment options knowledge; congruence between values and choices), or professionals' perspectives on SDM as a processare underrepresented in existing measures. It is also necessary to compare patients', professionals' and objective assessments, which have shown poor correlation in studies in physical health care settings (Scholl, Kriston, Dirmaier & Harter 2012; Kasper et al. 2012; Kasper et al. 2011). In summary, data on convergent/discriminant validity are needed to better delimitate the proposed constructs. Finally, existing evidence about the predictive performance of measures of SDM on behavioral (adherence, self-management) and health outcomes (symptoms, health-related quality of life) is scarce, but some significant positive associations have been found (Loh, Simon, et al. 2007; Clever et al. 2006; Woolley et al. 2010).

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One of the most important challenges for SDM research in mental health is to capture the complexity of decision making processes in mental health care settings. For example decisions occur over multiple time points, involve chronic and ongoing challenges where comorbidity of physical and mental health problems are common, and where service users often also face significant social and work impairment associated to social stigma discrimination. In this context, interventions should include decisions not only about pharmacological or psychological treatment, but also about psychosocial issues like work, lifestyle, housing, legal issues, social and leisure activities or family relationships. Research on SDM in mental health care should recognize that different kind of decisions may be needed in any one clinical encounter, and that patients often may not recognize that a decision is required (Barr & Elwyn, 2016).

The significant impact that mental health problems have on distinct life areas also highlight the importance of patients' social support, and in this sense the involvement of caregivers, family, or parents of young patients in the process of care and decision making seems crucial to increases the quality of services and maximize clinical improvement and quality of life. Research must therefore include their views and experiences, and the way that these views are aligned with those of patients and mental health professionals (Roberts & Kim 2015). The triangulation of these three perspectives will enable the detection of potential discrepancies in perceptions, preferences and intentions regarding treatment that could interfere negatively the process of care.

From a longitudinally point of view, the chronic nature of many of mental health problems is often associated with long term prescription of of psychiatric medications, which may lead to impairing and serious physical adverse effects. Therefore, it is necessary a continuous

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monitoring of treatment outcomes, and many times successive decisions will must be taken regarding switching, augmenting or discontinuing medication. In this sense, the quality and quantity of SDM may be routinely assessed. Both SDM and routine outcome monitoring are able to empower the patient during the treatment process and to provide good quality information in order to be a more effective agent in the decision-making process (Metz et al., 2015). The active participation of the patients in these decisions and an effective communication with the health care provider will increase the likelihood of achieving an optimal adjustment of pharmacological treatment. Measures of SDM should incorporate this temporal dimension taking into account the stability of users' preferences for involvement, their perceptions of the continuity of care, and the influence on these aspects of previous treatments and the evolution of clinical symptoms.

Finally, from an organizational perspective, although there is no universally agreed measure of SDM, there are some proposed solutions at different levels (micro, meso or macro level) to overcome key challenges to measure SDM (Barr et al. 2016). In particular, it would be useful for organizations: to involve patients and healthcare professionals in designing, developing and testing measures; to build strategies to include patient-reported outcomes in organizational registries (e.g., electronic medical records); to set up automated analysis methods to provide rapid feedback and methods of monitoring SDM in clinical encounters (to service users, mental health professionals, multidisciplinary teams care, organizations and health care systems ); to set aside staff time to measure and monitor key outcomes; and finally, to promote tools as a component of a continuous monitoring set of routines, and build the tools into balanced scorecard when the value of measuring may not be recognized (Barr et al. 2015; Metz et al. 2015).

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~~Conclusions~~

~~In conclusion, SDM may be particularly relevant in mental health care, where increasing treatment-related empowerment and reducing use of coercion have been identified by patients as outcomes of intrinsic value (Stovell et al. 2016). However, there is little or no consensus about the core set of measures and constructs for SDM in MH, and the evidence available on the performance of published instruments is variable (Salyers et al. 2012; Scholl et al. 2011; Metz et al. 2015; Bouniols et al. 2016). In this sense, theory development on a set of core constructs to be measured is paramount. Furthermore, the International Patient Decision Aids Standards Collaboration, a world-wide group of researchers, practicioners, and stakeholders who are interested in the design and use of patient decision aids, has acknowledged the importance of measuring the involvement of patients in the decision-making process and decision quality to assess the effect of interventions to facilitate SDM in mental health care, yet far more rigorous and systematic methods are needed to make this a reality.~~

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Figure 1. Study selection process (PRISMA)

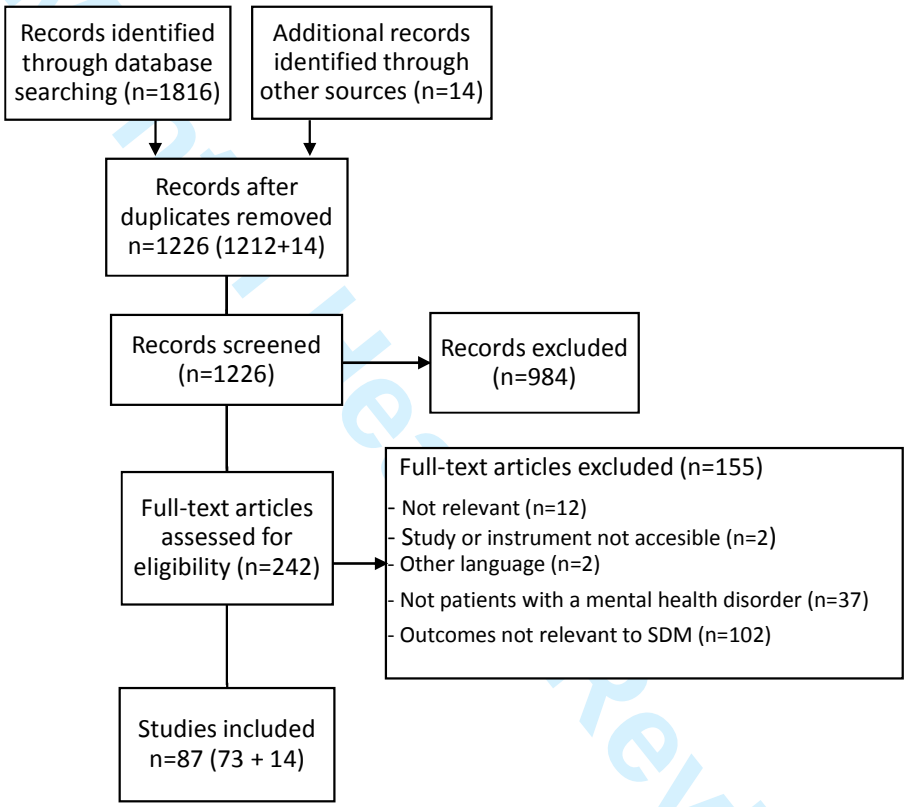

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| **DECISION ANTECEDENTS** | | | | | |
| Autonomy Preference Index (API) | Preferred role (information preferences; decision-making autonomy preferences) | 23 | Likert scale (1-5) | Patient | Mixed sample (Hill and Laugharne, 2006; Adams, Drake and Wolford, 2007; Lukens, Solomon and Sorenson, 2013; van der Krieke et al., 2013; Bonfils et al., 2014, 2015; Wright-Berryman and Kim, 2016)<br><br>Depression (Hamann et al., 2007, 2014; O'Neal et al., 2008; Simon et al., 2010)<br><br>Schizophrenia (Hamann et al., 2006, 2007, 2010, 2012; Hamann, Mendel, et al., 2011)<br><br>Alzheimer (Hamann, Bronner, et al., 2011) |
| Clinical Decision Making Style (CDMS) | Preferences for participation (Participation in DM; Information) | 21 | Likert scale (0-4) | Patient Professional | Mixed sample (Puschner et al., 2013; Clarke et al., 2015) |
| Consumer Quality Index (CQI)[1*] | Preferences and experience in involvement (Affective communication; Information provision; Shared decision making) | 20 | Likert scale (1-4) | Patient | Adolescents receiving psychosocial or mental health care (Jager et al., 2014) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| Control Preferences scale (CPS)[2] | Preferred and perceived role | 1 | 5 statements | Patient<br>Parents | Mixed sample (Adams, Drake and Wolford, 2007; Mahone, 2008; Patel and Bakken, 2010; De las Cuevas, Peñate and de Rivera, 2014)<br><br>Depression (O'Neal et al., 2008; Fumero et al., 2016)<br><br>Bipolar (Liebherz et al., 2015)<br><br>Children/adolescents with ADHD (Ahmed et al., 2016) |
| Decision Emotional Control Scale (DECS) | Decision emotional control | 5 | Likert scale (1-3) | Patient | Schizophrenia (Bunn et al., 1997) |
| Decision Self Efficacy Scale (DSES) | Decisional Self-efficacy | 11 | Likert scale (1-3) | Patient | Mixed sample (Moncrieff et al., 2016)<br><br>Schizophrenia (Bunn et al., 1997)<br><br>Children/adolescents with "serious emotional disturbance" (O'Brien et al., 2013)<br><br>Depression (O'Neal et al., 2008) |
| Decisional Balance for Patient Choice in Substance Abuse Treatment | Preferences for participation | 26 | Likert scale (1-5) | Patient | Substance Abuse (Finnell and Lee, 2011) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| Family Involvement in Treatment scale (FIT) | Desire for family involvement in treatment | 21 | Likert scale (0-4) | Patient | Mixed sample (Cohen et al., 2013) |
| Leeds Attitude to Concordance scale (LATCon) | Attitude towards concordance | 12 | Likert scale (0-3) | Patient | Mixed sample (De las Cuevas et al., 2011) |
| Leeds Attitude to Concordance scale II (LATCon II) | Attitude towards concordance | 20 | Likert scale (0-4) | Professional | Mixed sample (De las Cuevas et al., 2012; Ali et al., 2015) |
| Preferences and Satisfaction Questionnaire[2] | Preference and experiences about family involvement | 35 | 4-point Likert scale | Patient | Mixed sample (Perreault et al., 2005) |
| Perceived Efficacy in Patient-Physician Interactions questionnaire (PEPPI) | Interaction self-efficacy | 10 | Likert scale (1-5) | Patient | Mixed sample (Alegría et al., 2014) |
| Preparation for Decision Making Scale | Preparation for decision-making | 10 | Likert scale (1-5) | Patient | Depression (Simon et al., 2012) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| Problem Solving Decision Making Scale (PSDM) | Preference for participation | ~~15~~2 | Likert scale (0-3) | Patient | Anxiety or depression (Patel and Bakken, 2010)<br>Schizophrenia (Hamann, Mendel, et al., 2011) |
| **DECISION-MAKING PROCESS** | | | | | |
| CollaboRATE | SDM process | 3 | Likert scale (0-4) | Patient | Depression (Barr, Forcino, et al. 2016; Noel et al. 2016)<br>Mixed sample (Rosenberg et al., 2016) |
| Clinical Decision Making Involvement and Satisfaction (CDIS) | SDM process (Involvement; Satisfaction with the decision) | 15 | Likert scale (1-5) | Patient Professional | Mixed sample (Puschner et al., 2013; Slade et al., 2014; Clarke et al., 2015) |
| Consumer Assessment of Healthcare Providers and Systems (CAHPS)[1]* | SDM process | 4 | Likert scale (1-7) | Parents | Children with autism (Golnik, Maccabee-Ryaboy, et al., 2012; Golnik, Scal, et al., 2012) |
| Dyadic OPTION | SDM process | 12 | Likert scale (1-4) | Patient Professional | Mixed sample (Rosenberg et al., 2016) |
| Experience of Service Questionnaire (ESQ)[1]* | SDM process | 4 | Likert scale (1-3) | Patient | Mixed sample (Edbrooke-Childs et al., 2016) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| Goldring Patient–Provider Scale of shared decision making (GPPS) | SDM process | 12 | - | Patient | Depression (Lee King et al., 2015) |
| Health Care Climate Questionnaire (HCCQ) | SDM process | 6 | Likert scale (1-5) | Patient | Mixed sample (Wright-Berryman and Kim, 2016) |
| Informed Decision Making Scale (IDMS) | SDM process | 9 | Likert scale (0-2) | Observer | Mixed sample (Braddock et al., 2002; Matthias et al., 2014) |
| Involvement Indicators Scale | SDM process | 7 | 5-point Likert scale | Patient | Mixed sample (Tambuyzer and Van Audenhove, 2013) |
| Measure of Patient-Centered Communication (MPCC) | SDM process (Exploring Both the Disease and the Illness Experience; Understanding the Whole Person; Finding Common Ground) | - | - | Observer | Mixed sample (Campbell et al., 2014) |
| National Survey of Children with Special Health Care Needs (NS-CSHCN)[1]* | SDM process | 4 | Likert scale (1-4) | Parents | Mixed sample of children (Butler, Weller and Titus, 2015)<br><br>Children with ADHD (Butler et al., 2015; Lipstein et al., 2016) |
| Observing patient involvement in decision making' (OPTION) | SDM process | 12 | Likert scale (0-4) | Observer | Mixed sample (Goossensen, Zijlstra and Koopmanschap, 2007; Goss et al., 2008; McCabe et al., 2013)<br><br>Depression (Loh et al., 2006; Scholl, Kriston, |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| | | | | | Dirmaier and Harter, 2012; Aljumah and Hassali, 2015; LeBlanc et al., 2015)<br><br>Children with ADHD (Brinkman et al., 2013) |
| Patient Assessment of Chronic Illness Care (PACIC)[*1] | SDM process | 6 | Yes/No | Patient | Antidepressant users (Solberg et al., 2014) |
| Patient Participation Scale from Man-Son-Hing (MSH-scale) | SDM process | 6 | Likert scale (1-5) | Patients | Depression (Loh, Leonhart, et al., 2007~~b~~; Loh, Simon, et al., 2007) |
| Patient Perception of Patient-Centeredness questionnaire (PPPC) | SDM process | 14 | Variable response options | Patient | Mixed sample (Bonfils et al., 2014; Campbell et al., 2014) |
| Perceived involvement in care scale (PICS) | SDM process | 13 | Likert scale (1-5) | Patient | Depression (Loh, Simon, et al., 2007; Simon et al., 2012) |
| Perceptions of Care (PoC) | SDM process | 16 | Likert scale (1-4)<br>Yes/no | Patient | Mixed sample (Rise and Steinsbekk, 2015) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| Physician Participatory Decision-Making (PDM) Style scale | SDM process | 3 | Likert scale (1-5) | Patient Professional | Depression (Wills and Holmes-Rovner, 2003; Swanson et al., 2007)<br><br>Children with ADHD (Honeycutt et al., 2005) |
| Shared Decision Making Questionnaire 9-item (SDM-Q-9) | SDM process | 9 | Likert scale (0-5) | Patient | Mixed sample of inpatients (Zisman-Ilani et al. 2017~~6~~) and outpatients (De las Cuevas et al. 2013; Rodenburg-Vandenbussche et al. 2015; Alvarez et al., 2016) with severe mental illnesses such as schizophrenia and depression<br><br>Depression (Kriston et al., 2010; Kriston, Harter and Scholl, 2012; Scholl, Kriston, Dirmaier and Harter, 2012) |
| Shared Decision Making Questionnaire - Physician Version (SDM-Q-Doc) | SDM process | 9 | Likert scale (0-5) | Professional | Mixed sample (Rodenburg-Vandenbussche et al., 2015~~b~~)<br><br>Depression (Kriston, Harter and Scholl, 2012; Scholl, Kriston, Dirmaier, Buchholz, et al., 2012) |
| Service Satisfaction Questionnaire (SSQ) | SDM process | 8-10 | 4-point Likert scale | Patient Parents | Children/adolescents referred to mental health services (Callaghan et al., 2004) |
| Survey of Health Care Experiences of Patients – inpatient version (I-SHEP) | Perceived involvement (Hospital-nurses; Care information; Doctors) | 37 | - | Patient | Mixed sample (Bowersox et al., 2013) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| - | SDM process | 7 | Likert scale(1-5) | Patients<br>Parents | Children/adolescents with "serious emotional disturbance'' (O'Brien et al., 2013) |
| **DECISION OUTCOMES** | | | | | |
| | Knowledge | 7-18 | Multiple choice<br>True/False | Patient<br>Surrogate | Schizophrenia (Hamann et al., 2006)<br>Depression (Wills and Holmes-Rovner, 2003; Simon et al., 2012; LeBlanc et al., 2015)<br>Dementia (Einterz et al., 2014)<br>Children with ADHD (Brinkman et al., 2013) |
| Combined Outcome Measure for Risk Communication and Treatment Decision-Mmaking Effectiveness (COMRADE) | Perceived effectiveness of the DM process (Satisfaction with communication; Confidence in decision) | 20 | 5-points Likert scale | Patient | Mixed sample (van der Krieke et al., 2013)<br>Schizophrenia (Hamann et al., 2006) |
| Satisfaction with Information about Medicines Scale (SIMS) | Satisfaction with information | 17 | 5 categories (dichotomized) | Patient | Bipolar (Bowskill et al., 2007) |
| Satisfaction With Decision scale (SWDS) | Satisfaction With Decision | 6 | Likert scale (1-5) | Patient | Depression (Wills and Holmes-Rovner, 2003) |
| SURE | Decisional conflict | 4 | Yes/No | Patient | Mixed sample (Rosenberg et al., 2016) |
| Decisional Conflict Scale (DCS) | Decisional conflict | 16 | Likert scale (0-4) | Patient | Depression (Wills and Holmes-Rovner, 2003; Simon et al., 2012; LeBlanc et al., 2015) |

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**Table 1. Summary of measures of SDM for mental Health**

| Measure name | Construct (and subscales) assessed | Items | Response scale | Perspective | Mental health condition |
|---|---|---|---|---|---|
| | | | | | Children with ADHD (Brinkman et al., 2013)<br>Schizophrenia (Bunn et al., 1997) |
| Decision Regret Scale (DRS) | Satisfaction With Decision | 5 | Likert scale (1-5) | Patient | Depression (Simon et al., 2012) |

[1]* For these instruments, that assess broader aspects of care than SDM, items about patient involvement/SDM were selected and treated as a psychometric scale (internal consistency reported).

[2] These instruments also assess perceived involvement.

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**Table 2. Other studies assessing SDM in mental health**

| Study (Author and year) | Mental health condition | Constructs assessed (number of items) | Perspective |
|---|---|---|---|
| (Arora and McHorney, 2000) | Depression | Preference for participation (1) | Patient |
| (Ali et al., 2015) | Mixed sample | Perceived involvement (2) | Professional |
| (Burnett-Zeigler et al., 2011) | Mixed sample | Perceived involvement (1) | Patient |
| (Clever et al., 2006) | Depression | Perceived involvement (1) | Patient |
| (De las Cuevas et al., 2011) | Mixed sample | Preference for participation (3), Perceived involvement (1), Feeling informed (2) | Patient |
| (Dijkstra, Jaspers and van Zwieten, 2008) | Antidepressant users | Treatment intention (1 item with 9 options) | Patient |
| (Hamann, Mendel, et al., 2011) | Schizophrenia | Preference for participation (Card sorting), Decisional self-efficacy (1) | Patient |
| (Hamann et al., 2014) | Depression | Perceived involvement (1) | Patient |
| (Klingaman et al., 2015) | Mixed sample | Preference for participation (3) | Patient |
| (Landis et al., 2007) | Depression | Perceived involvement (6) | Patient |
| (Park et al., 2014) | Mixed sample | Preference for participation (3) | Patient |
| (Paton and Esop, 2005) | Schizophrenia | Perceived involvement (5) | Patient |

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**Table 2. Other studies assessing SDM in mental health**

| Study (Author and year) | Mental health condition | Constructs assessed (number of items) | Perspective |
|---|---|---|---|
| (Trujols et al., 2012) | Addiction | Perceived involvement (2) | Patient |
| (Vohra et al., 2014) | Autism | Perceived involvement (1) | Patient |
| (Woolley et al., 2010) | Depression | Perceived involvement (1) | Patient |
| (Zikmund-Fisher et al., 2010) | Depression | Perceived involvement (9) | Patient |

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**Appendix A. Search strategies**

PUBMED/MEDLINE

((((((((shar*[title] AND decision[title]) OR "shared clinical decision*"[tiab] OR "shared medical decision*"[tiab] OR SDM[tiab] OR "shared decision*"[tiab] OR (patient*[title] AND empower*[title])) OR (("Decision making"[title] OR "Decision making"[MeSH] OR "decision* support*"[ti] OR "decision* aid*"[ti]) AND ("patient participation"[ti] OR "patient participation"[Mesh] OR "patient-centered care"[Mesh] OR "patient centered care"[title] OR "patient satisfaction"[ti] OR "patient satisfaction"[Mesh] OR "patient acceptance of health care"[Mesh] OR "Patient Preference*"[title] OR "patient value*"[title] OR "patient preference"[Mesh]))) AND (Community Mental Health Services[Mesh] OR "Mental disorders"[MAJR] OR Psychiatric nursing[Mesh] OR Psychiatry[Mesh] OR mental[title] OR psychiatr*[title] OR psychol*[title] OR schiz*[title] OR neurotic[ti] OR obsessiv*[ti] OR panic[title] OR phobic[title] OR phobia[title] OR anorexia[title] OR "Attention deficit"[title] OR anxiety[title] OR depress*[title] OR Behaviour[title] OR behavior[title] OR personality[title] OR paranoi*[title])) AND (questionnaire*[tiab] OR survey*[tiab] OR tool*[title] OR test*[title] OR instrument*[title] OR interview*[title] OR Surveys and Questionnaires[Mesh])))

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

SCOPUS

((TITLE-ABS-KEY ((shared W/2 decision*) OR (sdm AND (shared AND decision*)))) OR (((TITLE (("decision making" OR (decision W/1 support*) OR (decision W/1 aid*))) OR KEY (("decision making" OR (decision W/1 support*) OR (decision W/1 aid*))))) AND ((TITLE ((patient W/1 participation*) OR (patient* W/2 center* W/2 care) OR (patient W/2 satisfaction) OR (patient W/2 preference)) OR KEY ((patient W/1 participation*) OR (patient* W/2 center* W/2 care) OR (patient W/2 satisfaction) OR (patient W/2 preference)))))) AND ((TITLE (mental OR psychiatr* OR psychol* OR schiz* OR neurot* OR obsessiv* OR panic OR phobic OR phobia OR anorexia OR "Attention deficit" OR anxiety OR depress* OR personality OR paranoi*) OR KEY (mental OR psychiatr* OR schiz* OR neurot* OR obsessiv* OR panic OR phobic OR

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phobia OR anorexia OR "Attention deficit" OR anxiety OR depress* OR personality OR paranoi*))) AND ((TITLE (questionnaire* OR survey*) OR KEY (questionnaire* OR survey*) OR ABS (questionnaire* OR survey*)))

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

PSYCINFO = 101 resultados

((MeSH : (mental disorders)) OR (Title: (mental OR psychiatr* OR psychol* OR schiz* OR neurot* OR obsessiv* OR panic OR phobic OR phobia OR anorexia OR " Attention deficit" OR anxiety)) OR (Subject : (mental OR psychiatr* OR schiz* OR neurot* OR obsessiv* OR panic OR phobic OR phobia OR anorexia OR " Attention deficit" OR anxiety))) AND (((Any Field: (questionnaire*)) OR (Title: (survey*)) OR (Subject: (survey*))) AND ((((Title : (("decision making" OR (decision NEAR/1 support*) OR (decision NEAR/1 aid*))) OR (Subject: (("decision making" OR (decision NEAR/1 support*) OR (decision NEAR/1 aid*))))) AND ((Title: (((patient NEAR/1 participation*)))) OR (Title: (((patient* NEAR/2 center* NEAR/2 care)))) OR (Title: (((patient NEAR/2 satisfaction)))) OR (Title: (((patient NEAR/2 preference*)))) OR (Subject: (((patient NEAR/1 participation*)))) OR (Subject: (((patient* NEAR/2 center* NEAR/2 care)))) OR (Subject: (((patient NEAR/2 satisfaction)) )) OR (Subject: (((patient NEAR/2 preference*)))))) OR ((Any Field: ((shared NEAR/2 decision*))))))

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WEB OF SCIENCE = 82 resultados

Tema: (shared NEAR/2 decision*) AND Título: (mental OR psychiatr* OR psychol* OR schiz* OR neurot* OR obsessiv* OR panic OR phobic OR phobia OR anorexia OR "Attention deficit" OR anxiety OR depress* OR personality OR paranoi*) AND Tema: (questionnaire*)

Santa Cruz de Tenerife, June 7, 2017

Dear Editor,

Please find enclosed our re-revised manuscript entitled "*Measurement issues of shared decision making in mental health: Challenges and Opportunities* " (Manuscript ID MHRJ-01-2017-0004) by Lilisbeth Perestelo-Perez, Amado Rivero-Santana, Yolanda Alvarez-Perez, Yaara Zisman-Ilani, Emma Kaminskiy, Pedro Serrano-Aguilar, for its consideration as an review article in Mental Health Review Journal.

We would like to thank the reviewers and you for your careful revision and thoughtful comments on our paper. All the comments have been carefully taken into consideration for the preparation of our revised. We appreciate the constructive feedback that without doubt has improved our original.

Yours sincerely,

**Lilisbeth Perestelo-Perez, MPsych, Ph.D.**
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We sincerely thank the reviewers for constructive criticisms and valuable comments, which were of great help in revising the manuscript. Accordingly, the revised manuscript has been improved with new information and additional interpretations.

Our responses to the reviewers' comments are given below:

**Reviewer report**

**Based on the comments from the first pair of reviewers I believe the manuscript has significantly improved. I also think that the article provides a welcoming overview of available SDM measurement scales that will be useful in future research and hopefully also to clinical work.**

**I do have some comments that I believe will benefit the manuscript before being published.**

**Introduction**

**In the introduction, I suggest that the authors develops the connection between SDM in mental health and recovery (in the last paragraph on page 3 and in the first paragraph on page 4). Recovery seems particular relevant as SDM in areas such as medication may influence the individual's recovery process, and community integration. An article by Storm & Edwards 2013 may provide some useful input on the connection between SDM, patient centered care and recovery in mental health.**

Following the reviewer's suggestion, we have included a paragraph in the introduction (p. 3) commenting the concept of recovery and its relation with SDM.

**Methods**

**The paragraph with the heading "Types of measurements with SDM" will fit better in the introduction just before the purpose of the study on page 4.**

We agree with the reviewer's suggestion and have moved that paragraph to the introduction, before the study aim.

**Page 5: Please provide more details about the study selection form under the heading "Review of key measurement instruments in SDM in mental health".**

More details about the study selection form are provided in page 6.

**Page 6: who reviewed/ read the 242 articles?**

Review of the full texts was made by Amado Rivero-Santana (AR) and Lilisbeth Perestelo-Perez (LP) (p. 6). For most excluded studies it was only necessary to check data about whether instruments applied fitted our inclusion criteria or the population included a differentiated mental health subsample, because abstracts were not completely explicit about those aspects.

**Page 7: I miss information in the text about the flow chart presented in table 1.**

We now have commented in the text the two more common causes of exclusion of studies.

**Discussion**

**Page 13: What are potential challenges with triangulating patient, family and provider perspectives?**

Assessing all the perspectives involved could help to detect disagreements or potential conflicts that could act as barriers for an optimal care. Specifically, knowledge about the role of mental health patients' relatives in treatment decisions is very scarce, as this review shows. On the other hand, previous research has shown that patients, professionals and external observers' perceptions of patient's involvement are poorly correlated. Research should explore what causes those different perceptions of the same behavior interaction, and how those discrepancies influence patients' empowerment and recovery.

**As in the introduction, I would recommend developing the link between SDM and benefit of SDM for patients in terms of recovery and being able to live a meaningful life in the community. I believe this link will build a stronger argument for measuring SDM as part of day-to-day routine clinical practice.**

We now have included in the discussion a mention to the recovery model.

**Additional Questions:**

1. Originality: Does the paper contain new and significant information adequate to justify publication?: **I think that the article provides a welcoming overview of available SDM measurement scales that will be useful in future research and hopefully also to clinical work.**

**I do have some comments that I believe will benefit the manuscript before being published.**

2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?: **In the introduction, I suggest that the authors develops the connection between SDM in mental health and recovery (in the last paragraph on page 3 and in the first paragraph on page 4). Recovery seems particular relevant as SDM in areas such as medication may influence the individual's recovery process, and community integration. An article by Storm & Edwards 2013 may provide some useful input on the connection between SDM, patient centered care and recovery in mental health.**

**Authors' answer:** Following the reviewer's suggestion, we have included a paragraph in the introduction (p. 3) commenting the concept of recovery and its relation with SDM.

3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?: **the paper's argument is built on appropriate theory and concepts.**

4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?: **results are clearly presented**

5. Practicality and/or Research implications: Does the paper identify clearly any implications for practice and/or further research? Are these implications consistent with the findings and conclusions of the paper?: **Page 13: What are potential challenges with triangulating patient, family and provider perspectives?**

**Authors' answer:** Assessing all the perspectives involved could help to detect disagreements or potential conflicts that could act as barriers for an optimal care. Specifically, knowledge

about the role of mental health patients' relatives in treatment decisions is very scarce, as this review shows. On the other hand, previous research has shown that patients, professionals and external observers' perceptions of patient's involvement are poorly correlated. Research should explore what causes those different perceptions of the same behavior interaction, and how those discrepancies influence patients' empowerment and recovery.

**As in the introduction, I would recommend developing the link between SDM and benefit of SDM for patients in terms of recovery and being able to live a meaningful life in the community. I believe this link will build a stronger argument for measuring SDM as part of day-to-day routine clinical practice.**

**Authors' answer:** We now have included in the discussion a mention to the recovery model.

6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.: **The quality of language is ok**

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